

Write Carl Branson about guide  
to Glass Mtns.

Write author of guide and inquire  
about ammonoids said to be in  
Wolfcamp.

Glass Mtn. Ammonites  
*Eosianites modestus* (Böse) Uddenites  
zone below hill 4815. cgl.

*Neopronites bakeri* M. & F. 1938  
Dugout Mtn. (Wolfcamp)

*Peritrochia gaulti* (Smith) 5 mi NE  
of W.C.

Look up *Propinacoceras* M. & F. 1938

" " *Uddenites harlani* P. & S.  
2 mi. NW of Montgomery Ranch  
King loc 95 *Nodosa* M & F 1938

*Eothalassoceras Keyseri* Smith  
M & F 1938 5 mi. NE of WC  
King loc 94

*Shumardites uddeni* - same loc  
as above

*Plummeites minutus* (Böse)  
WC hills west end



*Peitsochia largisi* King loc. 89  
WC. See M & F 1938

*Uddenites oregoni* M & F 1938

5 mi NE of WC.  
*Paraceras texanus* (Böse) loc 95  
below hill 4815 in brown ls.  
with wood (not a ss.)

*Properinites* M & F 1938

*Eosiamites modestus* (Böse)  
5 mi NE of WC

*Paralegoceras rectilaterale* =  
*Dunbarites* South of Arnold Ranch

*Teguliferina* occurs with goniatites  
from South of Arnold Ranch

Lithology of goniatite bed of King  
loc 94 is not a ss but a  
brown, granular ls.

Matrix below hill 4815 is soft  
granular brown ls. has *Spinifer*  
*texanus*, *Peitsochia gaulti* (Smith)  
is abundant filled with yellow  
calcite. This bed is definitely  
not the one collected by Art  
and me.



Bed 13 in hill 4752 is a brown gray granular ls. with *Parenteleles*. It does not seem to be the ss. we collected but might be another bed at the level of the ss or in the suite of bed 13.

King loc below Hill 4815 is same kind of rock as above and has *Parenteleles*.

*A. Parenteleles* is labelled from bed 9 Wolf Camp section.

*Aulosteges wolfcampensis* in King locs. 198, 85, 188 (ammonoid bed) 201, 71, 86?

*A. wolfcampensis* from below hill 4815 (loc. 94) = *Linoproductus*



(17)

## Blocks from Glass Mtns. 1949

702 un	92	5
703 C	333	1
703d	430	1
703a	470	12
Pinery	700	3
Getaway	406	1
Tramway	688	2
706 b	596	4
W 4	635	6
706 C	743	7
707e	<u>5093</u>	33
HR		<u>12</u>
		57

2 boxes

373  
5466

- Pictures
- ✓ 1-2. Split tank from east
  - ✓ 3 702 C knot
  - ✓ 4 Aulosteges ledge
  - ✓ 5-6 Upper heavy bed of Leonard.
  - ✓ 7-8 Panorama of Mtn front
  - ✓ 9 " "
  - ✓ 10 - Leonard Mtn. from SE
  - 11 - 706 e
  - 12

Uddenites zone shale seen on both sides of dikes at NE end of Leonard Mtn. The cliffs of conglomerate may be Wolfcamp, not Hess as King maps them.



84.96

112.13

99.78

72.38

59.71

115.31

93.50

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637.77

100.00

112.00

120.00

80.00

---

949.77

Cumulus = heap

950.00



22

Blocks

26 - 176  
 27 - 77  
 28 - 97  
 29 - 112  
 30 - 122  
 31 - 96  
 32 - 147  
 33 - 80  
 34 - 115  
 35 - 111  
 36 - 158  
 37 - 149  
 38 - 170  
 39 - 99  
 40 - 79  
 41 - 244  
 42 - 151  
 43 - 121  
 44 - 254  
 45 - 137  
 46 - 93  
 47 - 70

25

Boxes

1 - 182  
 2 - 217  
 3 - 171  
 4 - 195  
 5 - 195  
 6 - 219  
 7 - 346  
 8 - 357  
 9 - 234  
 10 - 238  
 11 - 217  
 12 - 191  
 13 - 242  
 14 - 240  
 15 - 193  
 16 - 362  
 17 - 312  
 18 - 342  
 19 - 223  
 20 - 260  
 21 - 225  
 22 - 397  
 23 - 377  
 24 - 168  
 25 - 298

Trip with Loeblich  
 1948

6401  
 2858  
 9259



New Numbers

J24 4900' (Brooks Ranch?) 169-3

F5 of June 15, 1951 folded beds on US 90, 718-b

Jy 3<sup>4</sup> - 1951 169-4 also Leptod. bed in ls. 2 718c

June 28 below heavy ledge mapped as <sup>169-4</sup> Adenites half way up slope 169-4

F3 of Jy 25 1952 169-5 ~~Guadalupe~~ ~~80-200~~ check

WB #3 S side Road canyon 718d 1/2 miles W of east mouth (4) 169-11

Beds 5-9 of WC Slope opposite canyon end W.C. hills 1948 ✓

M21<sup>5</sup> = corals N end

M28 = 711x is fusuline bed high on W flank L.M.

M21<sup>5</sup> = 704 d.

M23<sup>4</sup> = 718 f

F4 Jy 25 1952 = *Syringopora* check date

Lower Hess South of Lenox 1941 - check east side Dayton ~~718c~~ check

F2 of J15-57 Lower Perrinites 172-11 718g

V15 1951 Dol with Perrinites } 1 mi 718h 5021 (same as above?)  
173-8

F1 of J15 Bowsher Sta 15c

D04 WC Fusulines from ls. Edge in gray shale  
50-75' above basal cgl. 7/10/45. 718f

F3 June 16 1951 173-13 718i

Leptodid bed on Ls. #2 of WC = 701A.



720x sent  
Garner Wilde

= 721e

These are  
same locality



# 1952 field numbers.

Get. Jy 1552 = <sup>Newell 600</sup> = Getaway, just S. of road  $\frac{1}{2}$  mile  
[732] west of bend at elevation 5316.

Get. Jy 1552 F2 = Getaway, 0.4 mile S of road,  $\frac{1}{2}$  mile  
[728] west of road bend at 5316. Just south of last S in  
Guadalupe Pass. Newell 512

Jy 1552 F3 = Hegler Ranch,  $\frac{1}{4}$  mile S  $55^{\circ}$  W of ranch house  
[733] up small Canyon - Newell 398 Pinery

Jy 1552 F4 Mid Pinery  $\frac{1}{2}$  mi. S of Hegler Ranch.  
[734]

Jy 1552 F5 100 yds S. of F3 Jy. 1552  
[735]

Jy 1552 F6 1 mile N of Hegler Ranch, Pinery  
[736]

Jy 16 Big Canyon, N side,  $\frac{1}{4}$  mile up from mouth.  
[737]

Lamar - McKittrick Canyon near mouth.  
738



~~709c Beaded Leptodid bed east of Sullivan Peak~~

707h " " Decie Ranch J 18 1950  
J 10 1945

707ha J 18 productid bed.  
Sponge beds east of Clay Slide 1950

708c J 9<sup>2</sup> Leonard Knob 2<sup>3</sup>/<sub>4</sub> mi E of Hess Gate 1950

Leonard . with Perimmites, hill on east side  
Sullivan Ranch road. 1950

Uddenites Scacchinellans west, east end of Knob  
J 19 1951

~~Remember most of 707a especially from  
loose block & locate near 707m, n.~~

Scacchinella in shale J 17' 1951



- 1- WC87-7; DC1-1; St-4.
- 2- WC87-13; WC2-1; WC9-2; W1-4.
- 3- W1A-6; St-6; DC2-12; DC1-4; DC4-1; DC1'-1; L1-2; St-5.
- 4- L1-2; WC2-10; DC1-1.
- 5- W3-5; L1-1; St-1; W1-1; WC9-3.
- 6- Misc - small items
- 7- W3'-7
- 8- W3'-5
- 9- W3'-5
- 10- W3'-6
- 11- WC2-3; WC87-2; DC1-7; DC3-1; DC4-2; W3-1; 708-3.
- 12- W3'-1; W2-7; M1-1; L4WR-3; WC9-1.
- 13- W2-7; DC1-1; L4WR-1; WC9-1.
- 14- WC9-11; W4-6.
- 15- L1-3; WC2-2; DC1-1; DC5-1; W1-4; WC9-1.
- 16- K124-5
- 17- L1-2; W1-2; K124-3; L4WR-2; WC9-1; DC4-9.
- 18- W1-1; DC4-3; WC9-1; 708-1; L4WR-8.
- 19- DC4 - many.
- 20- K124-3; W4-1; L4WR-7; U4WR-4.
- 21- W1-8; DC4B-1; DC4-2; L1-2; DC4A-1; L4WR-1; W4-1; U4WR-4.
- 22- K124-3; U4WR-2; StL-2; WC9-1; St-4.
- 23- WC9-3; W4-1; L4WR-2; WC2-1.
- 24- U4WR-6.
- 25- U4WR-5; K124-1; L4WR-7.
- 26- U4WR-4; WC2-1; StM-1; St-2.
- 27- L4WR-1; StL-2; U4WR-1.
- 28- W2-11
- 29- W2-7
- 30- W4-4; StL-1; W3-5.
- 31- W3-2; DC4-5; W4-1
- 32- W3-1; WC9-1; W4-1; DC4-2.
- 33- W4-2; W2-1; W3-1; DC4-2; StM-1; WC2-1.
- 34- StL-2; W4-1; StM-3; DC4A-1; W2-1.
- 35- U4WR-1; W4-1; StL-1; StM-2.

1  
 5  
 17  
 19  
 24  
 26  
 38  
 39

36  
 37  
 38  
 39



1957

S11 - 709d 142-13

S11<sup>1</sup> - 709e 142-13

S11<sup>2</sup> - 709f 142-15

S11<sup>3</sup> - 709g 142-13

S11<sup>4</sup> - 709h 142-13

S11<sup>5</sup> - 709i 142-11

S11<sup>6</sup> - 709j 142-11

S11<sup>7</sup> - 709k 142-12

S11<sup>8</sup> - 709m 142-13

S12 - 709n 142-13

S12<sup>1</sup> - 709o 142-11, 13

S13<sup>1</sup> - 709p 142-12

S13<sup>2</sup> - 709q 142-15

S13<sup>3</sup> - 709r 142-2

S13<sup>4</sup> - 709s 142-12

S13<sup>5</sup> - 709t 142-8

S13<sup>6</sup> - 709u 142-2, 142-3, 7, 12, 14

S14 - 709v 142-12

S14<sup>1</sup> - 709w 142-9

S14<sup>2</sup> - 709x 142-13

S14<sup>3</sup> - 709y 142-13

S14<sup>4</sup> - 709z 142-8

S14<sup>5</sup> - 714a 142-7

S14<sup>6</sup> - 714b 142-12

S14<sup>7</sup> - 714c 142-3

S14<sup>8</sup> - 714d 142-12

S14<sup>9</sup> - 714e 142-3, 8

S14<sup>10</sup> - 714f 142-12

S14<sup>11</sup> - 714g 142-15

S15 - 714h 142-15

S16 - 714i 142-9

S16<sup>1</sup> - 714j 142-15

S16<sup>2</sup> - 714k 142-6

S16<sup>3</sup> - 717u

S17 - 714m 142-13

S17<sup>1</sup> - 714n 142-12

S17<sup>3</sup> - 714o 142-6, 10

S18<sup>1</sup> - 714p 142-1, 4, 6, 14

S18<sup>2</sup> - 714q 142-7, 12, 13

S18<sup>3</sup> - 714r

S18<sup>4</sup> - 714s 142-13

S19 - 708e

S19<sup>3</sup> - 714t = 142-2, 4

S20 - 707a 142-1, 7, 8, 14

S22 - 714u 142-4

S22<sup>1</sup> - 714v 142-6

S22<sup>4</sup> - 714w 142-4

S22<sup>5</sup> - 714x 142-13



1957 Con'd

S22<sup>6</sup> = 714y 142-13

S23<sup>1</sup> = 714z 142-9

S23<sup>2</sup> = 715f 142-3, 9

S24<sup>1</sup> = 715g

S24<sup>4</sup> = 715h 142-13, 14

S25 = 715i 142-1, 14

S24 = 715j (25<sup>1</sup> above base) 142-3, 9, 13

S24 = 715k (30<sup>1</sup> above base) 142-3

S24<sup>6</sup> = 715m

S20<sup>1</sup> = 715b

S23 = 715n 142-9

S24<sup>3</sup> = 715o

S24 = 715p 142-11

S16<sup>3</sup> = 715q 142-12

G-9-13-1 measured sect. = 715r 142-12

S23<sup>3</sup> = 717v

G-9-13-3 measured sect. = 715t 142-12

S24<sup>2</sup> = 717w

S24<sup>5</sup> = 715u 142-12

S13 = 715v 142-12

S22<sup>2</sup> = 715w

J12, '53 = 715x

Leonard (3-4), SE nose hill 4920 = 715 y 142-15

Hill W of Iron Mtn. = 715z 142-7

Aug. 23, 1956 = 713

713a-z available



1958

M11 - 714w	M12 <sup>7</sup> = 717a	M20 <sup>8</sup> - 711x
M11 <sup>1</sup> - 710b	M15 <sup>1</sup> = 717b	M21 <sup>1</sup> - 711y
M11 <sup>2</sup> - 710c	M18 <sup>1</sup> = 717c	M21 <sup>2</sup> - 711z
M11 <sup>3</sup> - 710d	M18 <sup>2</sup> - 711c	M21 <sup>5</sup> - 712n
M13 <sup>5</sup> - 710e	M18 <sup>3</sup> - 711d	M21 <sup>6</sup> - 712o
M12 - 710f	M18 <sup>4</sup> - 711e	M21 <sup>7</sup> -
M12 <sup>1</sup> - 710g	M18 <sup>6</sup> - 711f	M21 <sup>8</sup> - corals
M12 <sup>2</sup> - 710h	M18 <sup>7</sup> - 711g	M22 - 712p
M12 <sup>3</sup> - 710i	M18 <sup>8</sup> - 711h	M22 <sup>1</sup> - 712q
M12 <sup>4</sup> - 710j	M18 <sup>9</sup> - 711i	M22 <sup>2</sup> - 712r
M12 <sup>5</sup> - 710k	M18 <sup>10</sup> - 711j	M22 <sup>3</sup> - 712s
M12 <sup>6</sup> - 710-l	M19 - 717i	M22 <sup>4</sup> - 712t
M13 <sup>1</sup> - 710m	M19 <sup>1</sup> - 711k	M22 <sup>5</sup> - 712u
M13 <sup>2</sup> - 710n	M19 <sup>2</sup> - 711-l	M22 <sup>6</sup> - 712v
M13 <sup>3</sup> - 710o	M19 <sup>3</sup> - 711m	M22 <sup>7</sup> - 717g
M13 <sup>4</sup> - 710p	M19 <sup>4</sup> - 711n	M22 <sup>8</sup> - 717f
M13 <sup>5</sup> - 717e	M19 <sup>5</sup> - 711o	M23 = 701h
M14 <sup>1</sup> - 710q	M19 <sup>6</sup> - 711p	M23 <sup>1</sup> - 712w
M14 <sup>2</sup> - 710r	M20 - 711q	M23 <sup>2</sup> - 712x
M14 <sup>3</sup> - 710s	M20 <sup>1</sup> = 709	M23 <sup>3</sup> - 712y
M15 <sup>2</sup> - 710t	M20 <sup>2</sup> - 711r	M23 <sup>4</sup> = 718f
M15 <sup>4</sup> - 710u	M20 <sup>3</sup> - 711s	M23 <sup>5</sup> - 712z
M16 <sup>1</sup> - 710v	M20 <sup>4</sup> - 711t	M24 <sup>1</sup> - 716a
M17 <sup>9</sup> - 710w	M20 <sup>5</sup> - 711u	M24 <sup>2</sup> - 716b
M17 <sup>12</sup> - 716y	M20 <sup>6</sup> - 711v	M24 <sup>3</sup> - 716c
M15 <sup>3</sup> = 716z	M20 <sup>7</sup> - 711w	M24 <sup>4</sup> - 716d



1958 Cont'd

M24<sup>5</sup> - 716e  
M24<sup>6</sup> - 716f  
M24<sup>7</sup> - 716g  
M24<sup>8</sup> - 716h  
M24<sup>12</sup> - 716i  
M24<sup>14</sup> - 716j  
M24<sup>15</sup> - 716k  
M25<sup>1</sup> - 716-1  
M25<sup>2</sup> - 716m  
M26 = 702un  
M27 - 716n  
M27<sup>1</sup> - 716o  
M27<sup>2</sup> - 702m  
M28 = 715i  
M28<sup>1</sup> - 716p  
M28<sup>2</sup> - 716q  
M28<sup>3</sup> - 716r  
M28<sup>4</sup> - 716s  
M28<sup>5</sup> - 716t  
M28<sup>6</sup> - 716u  
M29 - 716v  
M30 - 716w  
M30<sup>1</sup> - 716x  
M30<sup>2</sup> - 702e  
M30<sup>3</sup> = 717d  
M24 = 718s



1958

M11 - 714w	M12 <sup>7</sup> = 717a	M20 <sup>8</sup> - 711x
M11 <sup>1</sup> - 710b	M15 <sup>1</sup> = 717b	M21 <sup>1</sup> - 711y
M11 <sup>2</sup> - 710c	M18 <sup>1</sup> = 717c	M21 <sup>2</sup> - 711z
M11 <sup>3</sup> - 710d	M18 <sup>2</sup> - 711c	M21 <sup>5</sup> - 712n
M13 <sup>5</sup> - 710e	M18 <sup>3</sup> - 711d	M21 <sup>6</sup> - 712o
M12 - 710f	M18 <sup>4</sup> - 711e	M21 <sup>7</sup> -
M12 <sup>1</sup> - 710g	M18 <sup>6</sup> - 711f	M21 <sup>8</sup> - corals
M12 <sup>2</sup> - 710h	M18 <sup>7</sup> - 711g	M22 - 712p
M12 <sup>3</sup> - 710i	M18 <sup>8</sup> - 711h	M22 <sup>1</sup> - 712q
M12 <sup>4</sup> - 710j	M18 <sup>9</sup> - 711i	M22 <sup>2</sup> - 712r
M12 <sup>5</sup> - 710k	M18 <sup>10</sup> - 711j	M22 <sup>3</sup> - 712s
M12 <sup>6</sup> - 710-l	M19 - 717i	M22 <sup>4</sup> - 712t
M13 <sup>1</sup> - 710m	M19 <sup>1</sup> - 711k	M22 <sup>5</sup> - 712u
M13 <sup>2</sup> - 710n	M19 <sup>2</sup> - 711-l	M22 <sup>6</sup> - 712v
M13 <sup>3</sup> - 710o	M19 <sup>3</sup> - 711m	M22 <sup>7</sup> - 717g
M13 <sup>4</sup> - 710p	M19 <sup>4</sup> - 711n	M22 <sup>8</sup> - 717f
M13 <sup>5</sup> - 717e	M19 <sup>5</sup> - 711o	M23 - 701h
M14 <sup>1</sup> - 710q	M19 <sup>6</sup> - 711p	M23 <sup>1</sup> - 712w
M14 <sup>2</sup> - 710r	M20 - 711q	M23 <sup>2</sup> - 712x
M14 <sup>3</sup> - 710s	M20 <sup>1</sup> = 709	M23 <sup>3</sup> - 712y
M15 <sup>2</sup> - 710t	M20 <sup>2</sup> - 711r	M23 <sup>4</sup> = 718f
M15 <sup>4</sup> - 710u	M20 <sup>3</sup> - 711s	M23 <sup>5</sup> - 712z
M16 <sup>1</sup> - 710v	M20 <sup>4</sup> - 711t	M24 <sup>1</sup> - 716a
M17 <sup>9</sup> - 710w	M20 <sup>5</sup> - 711u	M24 <sup>2</sup> - 716b
M17 <sup>12</sup> - 716y	M20 <sup>6</sup> - 711v	M24 <sup>3</sup> - 716c
M15 <sup>3</sup> = 716z	M20 <sup>7</sup> - 711w	M24 <sup>4</sup> - 716d



1958 Cont'd

M24<sup>5</sup> - 716e

M24<sup>6</sup> - 716f

M24<sup>7</sup> - 716g

M24<sup>8</sup> - 716h

M24<sup>12</sup> - 716i

M24<sup>14</sup> - 716j

M24<sup>15</sup> - 716k

M25<sup>1</sup> - 716-l

M25<sup>2</sup> - 716m

M26 = 702un

M27 - 716n

M27<sup>1</sup> - 716o

M27<sup>2</sup> - 702m

M28 = 715i

M28<sup>1</sup> - 716p

M28<sup>2</sup> - 716q

M28<sup>3</sup> - 716r

M28<sup>4</sup> - 716s

M28<sup>5</sup> - 716t

M28<sup>6</sup> - 716u

M29 - 716v

M30 - 716w

M30<sup>1</sup> - 716x

M30<sup>2</sup> - 702e

M30<sup>3</sup> = 717d

M24 = 718s



Original +  
1 carbon.

1957

S11 — 709d 142-13

S11' — 709e 142-13

S11<sup>2</sup> — 709f 142-15

S11<sup>3</sup> — 709g 142-13

S11<sup>4</sup> — 709h 142-13

S11<sup>5</sup> — 709i 142-11

S11<sup>6</sup> — 709j 142-11

S11<sup>7</sup> — 709k 142-12

S11<sup>8</sup> — 709m 142-13

S12 — 709n 142-13

S12' — 709o 142-11, 13.

S13' — 709p 142-12

S13<sup>2</sup> — 709q 142-15

S13<sup>3</sup> — 709r 142-2

S13<sup>4</sup> = 709s 142-12

S13<sup>5</sup> = 709t 142-8

S13<sup>6</sup> = 709u 142-2, 142-3, 7, 12, 14.

S14 = 709v 142-12

S14' = 709w 142-9

S14<sup>2</sup> = 709x 142-13

S14<sup>3</sup> = 709y 142-13

S14<sup>4</sup> = 709z 142-8

S14<sup>5</sup> = 714a 142-7

S14<sup>6</sup> = 714b 142-12

S14<sup>7</sup> = 714c 142-3

S14<sup>8</sup> = 714d 142-12

S14<sup>9</sup> = 714e 142-3, 8

S14<sup>10</sup> = 714f 142-12

S14<sup>11</sup> = 714g 142-15

S15 = 714h 142-15

✓S16 = 714i 142-9

✓S16' = 714j 142-15

✓S16<sup>2</sup> = 714k 142-6

✓S16<sup>3</sup> = 717u — ?

✓S17 = 714m 142-13

✓S17' = 714n 142-12

✓S17<sup>3</sup> = 714o 142-6, 10

✓S18' = 714p 142-1, 4, 6, 14

✓S18<sup>2</sup> = 714q 142-7, 12, 13

✓S18<sup>3</sup> = 714r

✓S18<sup>4</sup> = 714s 142-13

✓S19 = 708e

✓S19<sup>3</sup> = 714t = 142-2, 4

✓S20 = 707a 142-1, 7, 8, 14

✓S22 = 714u 142-4



$$\checkmark S22^1 = 714v \quad 142-6$$

$$\checkmark S22^4 = 714w \quad 142-4$$

$$\checkmark S22^5 = 714x \quad 142-13$$

$$\checkmark S22^6 = 714y \quad 142-13$$

$$\checkmark S23^1 = 714z \quad 142-9$$

$$\checkmark S23^2 = 715f \quad 142-3, 9.$$

$$\checkmark S24^1 = 715g$$

$$\checkmark S24^4 = 715h \quad 142-13, 14$$

$$S25 = 715i \quad 142-1, 14$$

$$\checkmark S24 = 715j \text{ (25' above base)} \quad 142-3, 9, 13.$$

$$\checkmark S24 = 715k \text{ (30' above base)} \quad 142-3$$

$$\checkmark S24^6 = 715m$$

$$\checkmark S20^1 = 715b$$

$$\checkmark S23 = 715n \quad 142-9$$

$$\checkmark S24^3 = 715o$$

$$S24 = 715p \quad 142-11$$

$$S16^3 = 715q \quad 142-12$$

$$G-9-13-1 \text{ measured sect.} = 715r \quad 142-12 \quad \checkmark$$

$$S23^3 = 717v$$

$$G-9-13-3 \quad " \quad " = 715t \quad 142-12 \quad \checkmark$$

$$S24^2 = 717w$$

~~$$S22^3 \text{ (what number?)}$$~~  
~~$$S19^3 \quad " \quad "$$~~  
~~$$S19^1$$~~

$$\checkmark S24^5 = 715u \quad 142-12$$

$$S13 = 715v \quad 142-12$$

$$\checkmark S22^2 = 715w$$

$$f12, 53 = 715x$$

$$\text{Leonard (3-4), SE nose hill 4920} = 715y \quad 142-15$$

$$\text{Hill W of Iron Mt.} = 715z \quad 142-7$$

$$\text{Aug 23, 1956} = 713$$

713a-z available



✓ M 11 — 714w

✓ 11<sup>1</sup> — 710b ✓

✓ 11<sup>2</sup> — 710c ✓

✓ 11<sup>3</sup> — 710d ✗

✓ 13<sup>5</sup> — 710e ✓

✓ M 12 — 710f ✓

✓ 12<sup>1</sup> — 710g ✗

✓ 12<sup>2</sup> — 710h ✗

✓ 12<sup>3</sup> — 710i ✗

✓ 12<sup>4</sup> — 710j ✗

✓ 12<sup>5</sup> — 710k ✓

✓ 12<sup>6</sup> — 710l ✗

✓ M 13<sup>1</sup> — 710m ✗

✓ 13<sup>2</sup> — 710n ✗

✓ 13<sup>3</sup> — 710o ✗

✓ 13<sup>4</sup> — 710p ✗

✓ 13<sup>5</sup> — 717e wrote up?

✓ M 14<sup>1</sup> — 710q ✓

✓ 14<sup>2</sup> — 710r ✗

✓ 14<sup>3</sup> — 710s ✗

✓ M 15<sup>2</sup> — 710t ✗

✓ M 15<sup>4</sup> — 710u ✗

✓ M 16<sup>1</sup> — 710v ✗

✓ M 17<sup>9</sup> — 710w ✗

✓ 17<sup>12</sup> — 716y ✗

✓ M 15<sup>3</sup> = 716z ✗

✓ M 12<sup>7</sup> = 717a ✗

✓ M 15<sup>1</sup> = 717b = 717b

✓ M 18<sup>1</sup> = 717c ✗

✓ M 18<sup>2</sup> — 711e ✗

✓ 18<sup>3</sup> — 711d ✗

✓ 18<sup>4</sup> — 711e ✗

✓ 18<sup>6</sup> — 711f ✗

✓ 18<sup>7</sup> — 711g ✗

18<sup>8</sup> — 711h ✗

✓ 18<sup>9</sup> — 711i ✗

1958



✓18<sup>10</sup> — 711j ✓

M19 — 717i

M19' — 711k ✓

M19<sup>2</sup> — 711-l ✓

✓M19<sup>3</sup> — 711m ✓

✓M19<sup>4</sup> — 711n ✓

✓M19<sup>5</sup> — 711o ✓

✓19<sup>6</sup> — 711p ✓

M20 — 711q ✓

20<sup>1</sup> = 709 check ✓

20<sup>2</sup> — 711r ✓

20<sup>3</sup> — 711s ✓

20<sup>4</sup> — 711t ✓

20<sup>5</sup> — 711u ✓

20<sup>6</sup> — 711v ✓

20<sup>7</sup> — 711w ✓

20<sup>8</sup> — 711x ✓

✓M21' — 711y ✓

✓21<sup>2</sup> — 711z ✓

✓21<sup>5</sup> — 712m ✓

21<sup>6</sup> — 712o ✓

21<sup>7</sup>

21<sup>8</sup> — corals ✓

✓M22 — 712p ✓

✓22<sup>1</sup> — 712q ✓

✓22<sup>2</sup> — 712r ✓

✓22<sup>3</sup> — 712s ✓

✓22<sup>4</sup> — 712t ✓

✓22<sup>5</sup> — 712u ✓

✓22<sup>6</sup> — 712v ✓

✓22<sup>7</sup> — 717g

✓22<sup>8</sup> = 717f

✓M23 = 701h? ✓

✓23<sup>1</sup> — 712w ✓

23<sup>2</sup> = 712x ✓

23<sup>3</sup> — 712y ✓

23<sup>4</sup> — 718f

23<sup>5</sup> — 712z ✓



✓ M24<sup>1</sup> — 716a ✓

✓ 24<sup>2</sup> — 716b ✓

✓ 24<sup>3</sup> — 716c ✓

✓ 24<sup>4</sup> — 716d ✓

✓ 24<sup>5</sup> — 716e ✓

✓ 24<sup>6</sup> — 716f ✓

✓ 24<sup>7</sup> — 716g ✓

✓ 24<sup>8</sup> — 716h ✓

✓ 24<sup>12</sup> — 716i ✓

✓ 24<sup>14</sup> — 716j ✓

✓ 24<sup>15</sup> — 716k ✓

✓ M25<sup>1</sup> — 716-l ✓

✓ 25<sup>2</sup> — 716m ✓

✓ M26 = 702un ✓

✓ M27 — 716n ✓

✓ M27<sup>1</sup> — 716o ✓

✓ M27<sup>2</sup> — 702m ✓

✓ M28<sup>1</sup> — 716p ✓

✓ 28<sup>2</sup> — 716q ✓

✓ 28<sup>3</sup> — 716r ✓

✓ M28<sup>4</sup> — 716s ✓

✓ 28<sup>5</sup> — 716t ✓

✓ 28<sup>6</sup> — 716u ✓

✓ M29 — 716v

✓ M30 — 716w

✓ 30<sup>1</sup> — 716x ✓

✓ M30<sup>2</sup> — 702e

✓ M30<sup>3</sup> = 717d

M24 = 718s

M28 = 715i



Huaco, S.D. = 728 d ✓

Loc 625 = 728 e ✓

" 629 = 728 f ✓

Apache Canyon = 728 g ✓

Between 625 + 629 = 728 h ✓

Mouth of Big Canyon = 728 i ✓

M (McKittick) = 738 b



$$\begin{array}{r}
 208 \\
 \hline
 34 \overline{) 5000} \\
 \underline{48} \phantom{00} \\
 200 \\
 \underline{192} \\
 8
 \end{array}$$

210 pages



Rattlesnake Canyon 750a ✓  
Slaughter " 750b ✓  
Carlsbad Cavern 750  
Chinati Mtns <sup>Wolfcamp</sup> 728a ✓  
" " breccia 728b ✓  
" " Fusulines 728c ✓

Glase mtns start  
~~725~~  
721g

Canyon just W entrance to park 750c

Rattlesnake Canyon float 750a'

Jy 10<sup>3</sup> = 720i ✓

Jy 10<sup>2</sup> = 720j

Jy 10<sup>1</sup> = 720K ✓

Jy 10 base = 720l ✓

Jy 10 190 = 720m ✓

Jy 10 200 = 720n ✓

Jy 10 290 = 720o ✓

Jy 10 300 = 720p ✓

Jy 10 347 = 720q ✓

Jy 10 350 = 720r ✓

Jy 10 400 = 720s ✓

Jy 10 485 = 720t ✓

Jy 10 495 = 720u ✓  
Jy 12' = 720v ✓

1959  
localities



Jy 12<sup>2</sup> = 720w ✓

Jy 12<sup>4</sup> = 720y

Jy 12<sup>5</sup> = 720z

Jy 12<sup>7</sup> = 721a

Jy 12<sup>8</sup> base white ls = 721b ✓

Jy 12<sup>8</sup> 27' above base = 721c ✓

Jy 12<sup>8</sup> 32' " = 721d ✓

Jy 12<sup>8</sup> top of Knot = 721e ✓

Jy 13' = 721f

Jy 15<sup>2</sup> = 720h ✓

701d-striatifera = 721g ✓

Jy 12<sup>9</sup> = 721h

Jy 14<sup>2</sup> = 720d ✓

Jy 15 = 720g ✓

Jy 15' = 720f ✓

Brachinella beds = 720e

~~Jy 15<sup>2</sup>~~

Jy 19 (part) = 721j

Lower = 721i

Jy 19 (block) = 723a